

## **REMARKS**

Claims 1-33 are currently pending. Examiner has rejected claims 21-30 and 33 under 35 U.S.C. §101 as directed to non-statutory matter. Independent claims 21 and 33 have been amended in accordance with Examiner's suggestions to overcome this rejection.

In addition, claims 1, 2, 11, 12, 21 and 22 were rejected under 35 U.S.C. §102(b) as being anticipated by "Implementing certificate based authentication for remote users with Firewall-1/SecuRemote and openssl as CA" by Freiss ("Freiss"); and rejected claims 3-10, 13-20, and 23-33 under 35 U.S.C. §103(a) as being unpatentable over Freiss in view of U.S. Publication No. 2002/0091798 to Joshi et al. ("Joshi"). Applicants respectfully traverse the rejections for the reasons set forth hereinbelow.

Applicants' invention, as claimed in independent claims 1, 11, 21, 31, 32, and 33, is directed to an apparatus, method, computer program and computer program product for performing authentication operations. In various embodiments of Applicants' invention as claimed in the aforementioned independent claims, a client requests a resource from a server and a non-certificate-based authentication operation is performed through an SSL (Secure Sockets Layer) session between the server and the client. When the client subsequently requests another resource and the server determines to step up to a more restrictive level of authentication, a certificate-based authentication operation is performed through the SSL session without exiting or renegotiating the SSL session prior to completion of the certificate-based authentication operation.

In the rejection of independent claims 1, 11, 21, 31, 32, and 33, under 35 U.S.C. §102, Examiner alleges that Freiss teaches all of the limitations discussion above. Applicants respectfully disagree. The Freiss reference discloses the generation of a digital certificate for a client. Open SSL is used to securely communicate the digital certificate to the client. Thereafter, the client uses the digital certificate to authenticate itself to the server. Applicants assert that the Freiss reference does not disclose any more than the aforementioned processing steps.

## **CONCLUSION**

In summary, Applicants respectfully submit that independent claims 1, 11, 21, 31, 32, and 33 are allowable over the art of record for the reasons set forth above. Applicants further submit that all of the dependent claims are allowable since they depend from allowable based claims. In view of the amendments and remarks set forth herein, the application is believed to be in condition for allowance and a notice to that effect is solicited. Nonetheless, should any issues remain that might be subject to resolution through a telephonic interview, the examiner is requested to telephone the undersigned.

FILED ELECTRONICALLY  
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Respectfully submitted,

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